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L9 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:798541 HCAPLUS
DOCUMENT NUMBER: 135:328923
TITLE: Use of ink-jet printing to produce diffraction-based biosensors
INVENTOR(S): Kaylor, Rosann M.; Chidebelu-Eze, Chibueze Obinna; Choi, Abraham B.
PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081921	A2	20011101	WO 2001-US11705	20010411
WO 2001081921	A3	20020627		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1277056	A2	20030122	EP 2001-924915	20010411
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRIORITY APPLN. INFO.:			US 2000-557453 A 20000424	
			WO 2001-US11705 W 20010411	

AB The present invention provides an inexpensive and sensitive **device** and method for detecting and quantifying analytes present in a medium. The **device** comprises a metalized film upon which is ink-jet printed a specific, predetd. pattern of **binder**, such as an antibody. Upon attachment of a target analyte to select areas of the plastic film upon which the **binder** is printed, diffraction of transmitted and/or reflected light occurs via the phys. dimensions and defined, precise placement of the analyte. A diffraction image is produced which can be easily seen with the eye or, optionally, with a sensing **device**. Gold-coated Mylar was printed at 720 dpi with a thiolated polyclonal antibody to Strep B.

IC ICM G01N033-53
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 10, 15
ST ink jet printing diffraction biosensor; antibody printing gold coated Mylar diffraction biosensor
IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(E; use of ink-jet printing to produce diffraction-based biosensors)
IT Aspergillus fumigatus
(allergens conjugates with microparticles; use of ink-jet printing to produce diffraction-based biosensors)
IT Surfactants
(anionic, in **binder** layer inactivation in pattern; use of ink-jet printing to produce diffraction-based biosensors)

- IT Proteins, specific or class
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(antibody-binding; use of ink-jet printing to produce diffraction-based biosensors)
- IT Microparticles
(conjugates with *Aspergillus fumigatus* allergens; use of ink-jet printing to produce diffraction-based biosensors)
- IT Allergens
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates with microparticles; use of ink-jet printing to produce diffraction-based biosensors)
- IT Metals, uses
Polymers, uses
RL: DEV (Device component use); USES (Uses)
(films; use of ink-jet printing to produce diffraction-based biosensors)
- IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(gold-coated; use of ink-jet printing to produce diffraction-based biosensors)
- IT Optical sensors
(immunol. biosensors; use of ink-jet printing to produce diffraction-based biosensors)
- IT Biosensors
(immunol., optical; use of ink-jet printing to produce diffraction-based biosensors)
- IT Biosensors
(immunosensors; use of ink-jet printing to produce diffraction-based biosensors)
- IT Films
(metalized; use of ink-jet printing to produce diffraction-based biosensors)
- IT Antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(monoclonal, thiolated, to IgE, printing on gold-coated Mylar film; use of ink-jet printing to produce diffraction-based biosensors)
- IT Biosensors
(optical; use of ink-jet printing to produce diffraction-based biosensors)
- IT Biosensors
Ink-jet printing
Optical diffraction
Plastic films
Streptococcus group B
(use of ink-jet printing to produce diffraction-based biosensors)
- IT Antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(use of ink-jet printing to produce diffraction-based biosensors)
- IT 7440-57-5, Gold, uses
RL: DEV (Device component use); USES (Uses)
(Mylar coated with; use of ink-jet printing to produce diffraction-based biosensors)
- IT 25038-59-9, Mylar, uses
RL: DEV (Device component use); USES (Uses)
(gold-coated; use of ink-jet printing to produce diffraction-based biosensors)

IT 151-21-3, Sodium dodecyl sulfate, uses 9001-92-7, Protease
 RL: NUU (Other use, unclassified); USES (Uses)
 (in binder layer inactivation in pattern; use of ink-jet
 printing to produce diffraction-based biosensors)

IT 56-81-5, Glycerin, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (monoclonal antibody printing in relation to; use of ink-jet printing
 to produce diffraction-based biosensors)

IT 9003-39-8, Polyvinylpyrrolidone
 RL: DEV (Device component use); USES (Uses)
 (use of ink-jet printing to produce diffraction-based biosensors)

IT 9004-70-0, Nitrocellulose
 RL: NUU (Other use, unclassified); USES (Uses)
 (use of ink-jet printing to produce diffraction-based biosensors)

IT 169751-10-4, Sulfo-LC-SPDP
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (use of ink-jet printing to produce diffraction-based biosensors)

L9 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:453361 HCAPLUS

DOCUMENT NUMBER: 135:43091

TITLE: Use of wicking agent to eliminate wash steps for
 optical diffraction-based biosensors

INVENTOR(S): Kaylor, Rosann M.; Choi, Abraham B.; Grunze,
 Michael Heinrich Herbert; Chidebelu-Eze, Chibueze
 Obinna

PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044813	A2	20010621	WO 2000-US42768	20001212
WO 2001044813	A3	20020502		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6399295	B1	20020604	US 1999-465921	19991217
EP 1238277	A2	20020911	EP 2000-992910	20001212
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRIORITY APPLN. INFO.:			US 1999-465921 A 19991217	
			WO 2000-US42768 W 20001212	

AB The present invention provides an inexpensive and sensitive system and method for detecting analytes present in a medium. The system comprises a diffraction enhancing element, such as functionalized microspheres, which are modified such that they are capable of **binding** with a target analyte. Addnl., the system comprises a polymer film, which may include a metal coating, upon which is printed a specific, predetd. pattern of analyte-specific receptors. Finally, the system includes a wicking agent

which permits the system to be a single step system which avoids the necessity of any addnl. rinsing steps. Upon attachment of a target analyte to select areas of the polymer film, either directly or with the diffraction enhancing element, diffraction of transmitted and/or reflected light occurs via the phys. dimensions and defined, precise placement of the analyte. A diffraction image, such as a hologram, is produced which can be easily seen with the eye or optionally, with a sensing device. A nitrocellulose disk having a hole in the center was placed on top of the sample on biosensors for Group B Strep or for IgE to wick away unbound particles and excess liq. A diffraction image is visualized when analyte is present using a point light source aimed through the hole.

IC ICM G01N033-53
 CC 9-1 (Biochemical Methods)
 Section cross-reference(s): 10, 15
 ST wicking agent optical diffraction biosensor; Streptococcus B detection optical diffraction biosensor; IgE detection optical diffraction biosensor; nitrocellulose membrane wicking optical diffraction biosensor
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (A, IgA; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (E, IgE; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (G, IgG; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Escherichia coli
 (K1; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (M, IgM; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Rous sarcoma virus
 (RSV, antigen of; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Autoimmune disease
 Human immunodeficiency virus 1
 Human immunodeficiency virus 2
 Microorganism
 Streptococcus group A
 Streptococcus group B
 (antigen of; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Hepatitis
 (antigen specific to; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Polysulfones, uses
 RL: DEV (Device component use); USES (Uses)
 (arom.; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Surfactants
 (as blocking agent; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
 IT Albumins, analysis
 Polyoxyalkylenes, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (as blocking agent; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Latex
 (as diffraction enhancing element; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Glass, analysis
 Plastics, analysis
 Polycarbonates, analysis
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (as diffraction enhancing element; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Flagella
 Pilus
 (bacterial; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Flow
 (capillary, wicking agents; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Microparticles
 (conjugates with ALK; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Polyoxyalkylenes, uses
 RL: DEV (Device component use); USES (Uses)
 (conjugates with polyamides; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Polyamides, uses
 RL: DEV (Device component use); USES (Uses)
 (conjugates with polyethylene glycol; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Polymers, uses
 RL: DEV (Device component use); USES (Uses)
 (films; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Receptors
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (for analyte, printed on biosensor in predetd. pattern; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Microspheres
 (functionalized; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Neisseria meningitidis
 (group A; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Neisseria meningitidis
 (group B; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Neisseria meningitidis
 (group C; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Neisseria meningitidis
 (group W-135; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Neisseria meningitidis
 (group Y; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

IT Coating materials

- (metal; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Glass fibers, uses
RL: DEV (Device component use); USES (Uses)
(microfibers; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(monoclonal, thiolated, immobilized; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Biosensors
(optical diffraction; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Films
(polymer; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(tumor-assocd.; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Haemophilus influenzae
(type b; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT **Bacteria** (Eubacteria)
Blood analysis
Cellophane
Chelating agents
Drugs of abuse
Environmental analysis
Fungi
Membranes, nonbiological
Optical diffraction
Pharmaceutical analysis
Streptococcus pneumoniae
Virus
Yeast
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Allergens
Carcinoembryonic antigen
Haptens
Rheumatoid factors
RL: ANT (Analyte); ANST (Analytical study)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Antibodies
Antigens
Carbohydrates, analysis
Enzymes, analysis
Hormones, animal, analysis
Lipids, analysis
Nucleic acids
Polysaccharides, analysis
Proteins, general, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Metals, analysis

- RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Oligonucleotides
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Ionomers
Polyamides, uses
Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT Caseins, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(.beta.-, as blocking agent; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT 9002-89-5, Polyvinyl alcohol 25322-68-3, Polyethylene glycol
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(as blocking agent; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT 9003-53-6, Polystyrene 9004-34-6, Cellulose, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(as diffraction enhancing element; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT 9004-70-0, Nitrocellulose
RL: DEV (Device component use); USES (Uses)
(membrane; use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT 9002-67-9, LH
RL: ANT (Analyte); ANST (Analytical study)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT 7429-90-5, Aluminum, analysis 7439-89-6, Iron, analysis 7440-02-0, Nickel, analysis 7440-06-4, Platinum, analysis 7440-22-4, Silver, analysis 7440-47-3, Chromium, analysis 7440-50-8, Copper, analysis 7440-57-5, Gold, analysis 7440-67-7, Zirconium, analysis 11118-57-3, Chromium oxide 39403-39-9, Gold oxide
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)
- IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9004-34-6D, Cellulose, polymers, uses 9004-35-7, Cellulose acetate 9004-36-8, Cellulose acetate butyrate 9004-48-2, Cellulose propionate 9004-57-3, Ethyl cellulose 9012-09-3, Cellulose triacetate 9016-80-2, Methylpentene polymer 9051-64-3 9057-77-6 24968-79-4, Acrylonitrile-methyl acrylate copolymer 24981-14-4, Polyvinyl fluoride 25038-59-9, Mylar, uses 25322-68-3D, Polyethylene glycol, conjugates with polyamides
RL: DEV (Device component use); USES (Uses)
(use of wicking agent to eliminate wash steps for optical diffraction-based biosensors)

ACCESSION NUMBER: 2000:421409 HCAPLUS
 DOCUMENT NUMBER: 133:40210
 TITLE: Patterned deposition of antibody-binding proteins for optical diffraction-based biosensors
 INVENTOR(S): McGrath, Kevin; Kaylor, Rosann M.; Everhart, Dennis S.
 PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000036416	A1	20000622	WO 1999-US27727	19991122
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001055754	A1	20011227	US 1998-213713	19981217
EP 1141709	A1	20011010	EP 1999-960563	19991122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:

US 1998-213713 A 19981217
 WO 1999-US27727 W 19991122

AB The present invention provides an inexpensive and sensitive **device** and method for detecting and quantifying analytes present in a medium. The **device** comprises a metalized film upon which is printed a specific, predetd. pattern of an antibody-binding protein. Upon attachment of a target analyte to select areas of the plastic film upon which the protein is printed, diffraction of transmitted and/or reflected light occurs via the phys. dimensions and defined, precise placement of the analyte. A diffraction image is produced which can be easily seen with the eye or, optionally, with a sensing **device**. An immunosensor for LH had immobilized protein A printed on a gold/Mylar film. The sensor was reacted with monoclonal antibody to LH .beta..

IC ICM G01N033-543
 ICS G01N021-47

CC 9-1 (Biochemical Methods)
 Section cross-reference(s): 2, 15

ST patterned deposition antibody protein optical diffraction biosensor; LH immunosensor immobilized protein A

IT Proteins, specific or class
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (A, as antibody-binding protein; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (A; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Immunoglobulins

RL: ANT (Analyte); ANST (Analytical study)
(E; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(G, as antibody-binding protein; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(G; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(L, as antibody-binding protein; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(M; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(antibody-binding; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Autoimmune disease
Hepatitis
Human immunodeficiency virus 1
Human immunodeficiency virus 2
Microorganism
Rous sarcoma virus
Streptococcus group A
Streptococcus group B
(antigen of; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Polysulfones, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(arom.; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Albumins, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(as blocking material; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Polyamides, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(ethylene copolymer; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Neisseria meningitidis
(group A; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Neisseria meningitidis
(group B; patterned deposition of antibody-binding proteins
for optical diffraction-based biosensors)

IT Neisseria meningitidis
(group C; patterned deposition of antibody-binding proteins
for optical diffraction-based biosensors)

IT Neisseria meningitidis
(group W-135; patterned deposition of antibody-binding
proteins for optical diffraction-based biosensors)

IT Neisseria meningitidis
(group Y; patterned deposition of antibody-binding proteins
for optical diffraction-based biosensors)

IT Antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); SPN
(Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES
(Uses)
(immobilized; patterned deposition of antibody-binding
proteins for optical diffraction-based biosensors)

IT Optical sensors
(immunol. biosensors, for LH; patterned deposition of antibody-
binding proteins for optical diffraction-based biosensors)

IT Biosensors
(immunol., optical, for LH; patterned deposition of antibody-
binding proteins for optical diffraction-based biosensors)

IT Biosensors
(immunosensors, optical, for LH; patterned deposition of antibody-
binding proteins for optical diffraction-based biosensors)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal, conjugates, with polystyrene particles; patterned
deposition of antibody-binding proteins for optical
diffraction-based biosensors)

IT **Bacteria** (Eubacteria)
Biosensors
Candida
Cellophane
Drugs
Drugs of abuse
Environmental analysis
Escherichia coli
Films
Fungi
Microspheres
Optical diffraction
Salmonella
Streptococcus pneumoniae
Virus
Yeast
(patterned deposition of antibody-binding proteins for
optical diffraction-based biosensors)

IT Allergens
Antibodies
Carbohydrates, analysis
Carcinoembryonic antigen
Enzymes, analysis
Haptens
Hormones, animal, analysis
Lipids, analysis
Nucleic acids
Polysaccharides, analysis

Proteins, general, analysis

Rheumatoid factors

RL: ANT (Analyte); ANST (Analytical study)

(patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Antigens

RL: ANT (Analyte); ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)

(patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Ionomers

Metals, analysis

Oxides (inorganic), analysis

Polyesters, analysis

Polymers, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Albumins, analysis

RL: ARU (Analytical role, unclassified); ANST (Analytical study)

(serum, as blocking material; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Antigens

RL: ANT (Analyte); ANST (Analytical study)

(tumor-assocd.; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Haemophilus influenzae

(type b; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT Caseins, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(.beta.-, as blocking material; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT 9003-53-6DP, Polystyrene, conjugates with monoclonal antibody

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(particles; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT 9002-67-9, Luteinizing hormone

RL: ANT (Analyte); ANST (Analytical study)

(patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT 9003-99-0D, Peroxidase, conjugates with anti-mouse antibody

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT 7429-90-5, Aluminum, analysis 7439-89-6, Iron, analysis 7440-02-0, Nickel, analysis 7440-06-4, Platinum, analysis 7440-22-4, Silver, analysis 7440-47-3, Chromium, analysis 7440-50-8, Copper, analysis 7440-57-5, Gold, analysis 7440-67-7, Zirconium, analysis 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9004-34-6D, Cellulose, compds., analysis 9004-35-7, Cellulose acetate 9004-36-8, Cellulose acetate butyrate 9004-48-2, Cellulose propionate 9004-57-3, Ethyl cellulose 9004-70-0, Nitrocellulose 9012-09-3, Cellulose triacetate 9016-80-2, Methyl pentene polymer 24937-78-8 24968-79-4, Acrylonitrile-methyl acrylate copolymer 24981-14-4, Polyvinyl fluoride 25038-59-9, Polyethyleneterephthalate, analysis 31900-57-9, Polydimethylsiloxane

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

IT 150244-18-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(thiolation with; patterned deposition of antibody-binding proteins for optical diffraction-based biosensors)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:402097 HCAPLUS

DOCUMENT NUMBER: 133:40221

TITLE: Patterned binding of functionalized microspheres for optical diffraction-based biosensors

INVENTOR(S): Everhart, Dennis S.; Kaylor, Rosann M.; McGrath, Kevin

PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034781	A2	20000615	WO 1999-US27671	19991122
WO 2000034781	A3	20000817		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6221579	B1	20010424	US 1998-210016	19981211
EP 1137942	A2	20011004	EP 1999-961755	19991122
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
US 2001004526	A1	20010621	US 2000-733204	20001208
PRIORITY APPLN. INFO.:			US 1998-210016	A 19981211
			WO 1999-US27671	W 19991122

AB The present invention provides an inexpensive and sensitive system and method for detecting analytes present in a medium. The system comprises a diffraction enhancing element, such as functionalized microspheres, which are modified such that they are capable of binding with a target analyte. Addnl., the system comprises a polymer film, which may include a metal coating, upon which is printed a specific, predetd. pattern of analyte-specific receptors. Upon attachment of a target analyte to select areas of the polymer film, either directly or with the diffraction enhancing element, diffraction of transmitted and/or reflected light occurs via the phys. dimensions and defined, precise placement of the analyte. A diffraction image is produced which can be easily seen with the eye or, optionally, with a sensing device. Blue polystyrene particles were conjugated with monoclonal antibody. A gold/Mylar film was blocked with .beta.-casein and then antibody was immobilized in a pattern

on the surface. LH sample was mixed with the microparticles and then applied to the sensor. A nitrocellulose disk with a small hole in the center was used to wick away excess fluid and unbound microparticles. A point light source was transmitted through the hole and sensor to create a diffraction image on the other side.

IC ICM G01N033-53
 CC 9-1 (Biochemical Methods)
 Section cross-reference(s): 2, 3, 15
 ST patterned functionalized microsphere optical diffraction biosensor; LH immunosensor diffraction pattern
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (A; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Nucleic acid hybridization
 (DNA-DNA; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (E; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (G; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Immunoglobulins
 RL: ANT (Analyte); ANST (Analytical study)
 (M; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Autoimmune disease
 Hepatitis
 Human immunodeficiency virus 1
 Human immunodeficiency virus 2
 Microorganism
 Rous sarcoma virus
 Streptococcus group A
 Streptococcus group B
 (antigen of; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Polysulfones, analysis
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (arom.; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Albumins, analysis
 Polyoxyalkylenes, analysis
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (as blocking material; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Latex
 (as diffraction enhancing element; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Glass, analysis
 Plastics, analysis
 Polycarbonates, analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (as diffraction enhancing element; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)
 IT Flagella

Pilus

(**bacterial**; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Receptors

RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(conjugates, with microsphere diffraction enhancer or with sensor; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Neisseria meningitidis

(group A; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Neisseria meningitidis

(group B; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Neisseria meningitidis

(group C; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Neisseria meningitidis

(group W-135; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Neisseria meningitidis

(group Y; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Antibodies

RL: ARG (Analytical reagent use); DEV (Device component use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(immobilized, thiolated; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Oligonucleotides

RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(immobilized; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Optical sensors

(immunol. biosensors, for LH; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Biosensors

(immunol., optical, for LH; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Biosensors

(immunosensors, optical, for LH; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Antibodies

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal, conjugates, with polystyrene particles; patterned **binding** of functionalized microspheres for optical diffraction-based biosensors)

IT Bacteria (Eubacteria)

Biosensors

Candida albicans

Cellophane

Chelating agents

Drugs

Drugs of abuse

Environmental analysis

Escherichia coli

Films

Fungi

Microspheres
Optical diffraction
Scanning electron microscopy
Streptococcus pneumoniae
Surfactants
 Virus
Yeast
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Allergens
Carcinoembryonic antigen
Haptens
Rheumatoid factors
RL: ANT (Analyte); ANST (Analytical study)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Antibodies
Antigens
Carbohydrates, analysis
Enzymes, analysis
Hormones, animal, analysis
Lipids, analysis
Nucleic acids
Polysaccharides, analysis
Proteins, general, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); DEV (Device component
use); ANST (Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Metals, analysis
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); DEV
(Device component use); ANST (Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Oligonucleotides
Receptors
RL: ARG (Analytical reagent use); DEV (Device component use); ANST
(Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Ionomers
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
(Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Polyesters, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
(Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Polymers, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
(Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT Polyamides, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
(Analytical study); USES (Uses)
 (polyethylene copolymer; patterned **binding** of functionalized
 microspheres for optical diffraction-based biosensors)

IT Albumins, analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (serum, as blocking material; patterned **binding** of
 functionalized microspheres for optical diffraction-based biosensors)

IT Antigens
 RL: ANT (Analyte); ANST (Analytical study)
 (tumor-assocd.; patterned **binding** of functionalized
 microspheres for optical diffraction-based biosensors)

IT Haemophilus influenzae
 (type b; patterned **binding** of functionalized microspheres for
 optical diffraction-based biosensors)

IT Caseins, analysis
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (.beta.-, as blocking material; patterned **binding** of
 functionalized microspheres for optical diffraction-based biosensors)

IT 7704-34-9D, Sulfur, derivs., analysis 9002-89-5, Polyvinyl alcohol
 25322-68-3
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (as blocking material; patterned **binding** of functionalized
 microspheres for optical diffraction-based biosensors)

IT 9003-53-6, Polystyrene 9004-34-6, Cellulose, analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (as diffraction enhancing element; patterned **binding** of
 functionalized microspheres for optical diffraction-based biosensors)

IT 274951-41-6D, thiolated, immobilized
 RL: ARG (Analytical reagent use); DEV (Device component use); PRP
 (Properties); ANST (Analytical study); USES (Uses)
 (as probe; patterned **binding** of functionalized microspheres
 for optical diffraction-based biosensors)

IT 9013-20-1, Streptavidin
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (particles coated with; patterned **binding** of functionalized
 microspheres for optical diffraction-based biosensors)

IT 9003-53-6D, Polystyrene, conjugates with monoclonal antibody
 RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified);
 ANST (Analytical study); USES (Uses)
 (particles; patterned **binding** of functionalized microspheres
 for optical diffraction-based biosensors)

IT 9002-67-9, Luteinizing hormone
 RL: ANT (Analyte); ANST (Analytical study)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT 274951-42-7D, biotinylated
 RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT 275358-38-8, SEKL 15 275358-42-4, SEKB 250
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (patterned **binding** of functionalized microspheres for optical
 diffraction-based biosensors)

IT 7429-90-5, Aluminum, analysis 7439-89-6, Iron, analysis 7440-02-0,
 Nickel, analysis 7440-06-4, Platinum, analysis 7440-22-4, Silver,
 analysis 7440-47-3, Chromium, analysis 7440-50-8, Copper, analysis
 7440-57-5, Gold, analysis 7440-67-7, Zirconium, analysis 9002-88-4
 9003-07-0, Polypropylene 9003-56-9, Acrylonitrile-butadiene-styrene
 copolymer 9004-34-6D, Cellulose, compds., analysis 9004-35-7,
 Cellulose acetate 9004-36-8, Cellulose acetate butyrate 9004-48-2,
 Cellulose propionate 9004-57-3, Ethyl cellulose 9004-70-0,

Nitrocellulose 9012-09-3, Cellulose triacetate 9016-80-2, Methyl
 pentene polymer 11118-57-3, Chromium oxide 24937-78-8 24968-79-4,
 Acrylonitrile-methyl acrylate copolymer 24981-14-4, Polyvinyl fluoride
 25038-59-9, Polyethyleneterephthalate, analysis 31900-57-9,
 Polydimethylsiloxane 39403-39-9, Gold oxide
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (patterned binding of functionalized microspheres for optical
 diffraction-based biosensors)

IT 150244-18-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (thiolation with; patterned binding of functionalized
 microspheres for optical diffraction-based biosensors)

L9 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:405159 HCAPLUS

DOCUMENT NUMBER: 131:41789

TITLE: Optical diffraction biosensor

INVENTOR(S): Everhart, Dennis S.; Jones, Mark L.; Kaylor,
 Rosann Marie

PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9931486	A1	19990624	WO 1998-US26759	19981216
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6060256	A	20000509	US 1997-991644	19971216
CA 2309595	AA	19990624	CA 1998-2309595	19981216
AU 9919205	A1	19990705	AU 1999-19205	19981216
EP 1040338	A1	20001004	EP 1998-963991	19981216
R: BE, DE, ES, FR, GB, IT, NL, SE				
US 6436651	B1	20020820	US 2000-503554	20000211
PRIORITY APPLN. INFO.:			US 1997-991644 A	19971216
			WO 1998-US26759 W	19981216

AB The present invention provides an inexpensive and sensitive device and method for detecting and quantifying analytes present in a medium. The device comprises a metalized film (20) upon which is printed a specific, predetd. pattern of analyte-specific receptors (25). Upon attachment of a target analyte to select areas of the plastic film upon which the receptor is printed, diffraction of transmitted and/or reflected light occurs via the phys. dimensions and defined, precise placement of the analyte. A diffraction image is produced which can be easily seen with the eye or, optionally, with a sensing device.

IC ICM G01N021-47
 ICS B41M003-00

CC 9-1 (Biochemical Methods)

ST optical diffraction biosensor polymer metal

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(A; optical diffraction biosensor)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(E; optical diffraction biosensor)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(G; optical diffraction biosensor)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(M; optical diffraction biosensor)

IT Polysulfones, uses
RL: DEV (Device component use); USES (Uses)
(arom.; optical diffraction biosensor)

IT Containers
(food; optical diffraction biosensor)

IT **Bacteria** (Eubacteria)
Biosensors
Candida
Cellophane
Diapers
Drugs
Escherichia coli
Fungi
Haemophilus influenzae
Hepatitis
Human immunodeficiency virus 1
Human immunodeficiency virus 2
Latex
Neisseria meningitidis
Neoplasm
Optical diffraction
Rous sarcoma virus
Salmonella
Streptococcus group A
Streptococcus group B
Streptococcus pneumoniae
Virus
Yeast
(optical diffraction biosensor)

IT Antibodies
Carbohydrates, analysis
Carcinoembryonic antigen
Enzymes, analysis
Glass, analysis
Haptens
Hormones, animal, analysis
Lipids, analysis
Nucleic acids
Polycarbonates, analysis
Polysaccharides, analysis
Proteins, general, analysis
Rheumatoid factors
RL: ANT (Analyte); ANST (Analytical study)
(optical diffraction biosensor)

IT Metals, uses
RL: DEV (Device component use); USES (Uses)
(optical diffraction biosensor)

IT Polyesters, uses

RL: DEV (Device component use); USES (Uses)
 (optical diffraction biosensor)

IT Polymers, uses
 RL: DEV (Device component use); USES (Uses)
 (optical diffraction biosensor)

IT Receptors
 RL: DEV (Device component use); USES (Uses)
 (optical diffraction biosensor)

IT Polyamides, uses
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (polymer with oxirane; optical diffraction biosensor)

IT 24937-78-8, Polyethylene vinyl acetate
 RL: DEV (Device component use); USES (Uses)
 (copolymers; optical diffraction biosensor)

IT 9003-53-6, Polystyrene 9004-34-6, Cellulose, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (optical diffraction biosensor)

IT 75-21-8D; Oxirane, polymer with nylon, uses
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (optical diffraction biosensor)

IT 7429-90-5, Aluminum, uses 7439-89-6, Iron, uses 7440-02-0, Nickel,
 uses 7440-06-4, Platinum, uses 7440-22-4, Silver, uses 7440-47-3,
 Chromium, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses
 7440-67-7, Zirconium, uses 9002-88-4, Polyethylene 9003-07-0,
 Polypropylene 9003-56-9 9004-35-7, Cellulose acetate 9004-36-8,
 Cellulose acetate butyrate 9004-48-2, Cellulose propionate 9004-57-3,
 Ethyl cellulose 9012-09-3, Cellulose triacetate 11118-57-3, Chromium
 oxide 24968-79-4, Acrylonitrile-methyl acrylate copolymer 24981-14-4,
 Polyvinyl fluoride 25038-59-9, uses
 RL: DEV (Device component use); USES (Uses)
 (optical diffraction biosensor)

IT 169751-10-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (optical diffraction biosensor)

IT 37275-41-5, Methyl pentene
 RL: DEV (Device component use); USES (Uses)
 (polymers; optical diffraction biosensor)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT